Indiana Department of Environmental Management
2000 Annual Compliance Report for Indiana Public Water Supply Systems

IDEM Drinking Water Branch **June 2001**

Introduction

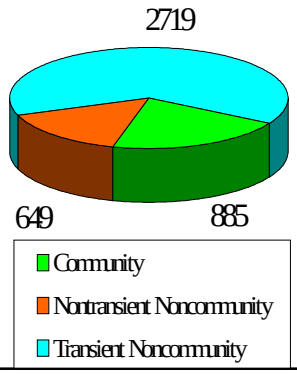
The 1996 Amendments to the Safe Drinking Water Act require each state to prepare an annual report of violations of the national primary drinking water regulations for public water supplies. The annual reports are intended to provide a summary of violations of maximum contaminant levels (MCL's), treatment techniques, variances and exemptions[1], and monitoring and reporting violations (M&R). This report includes information for the time period January 1, 2000 through December 31, 2000.

Public Water Supply Information

There are approximately 4,211 active public water supplies in Indiana. Graph 1 shows the distribution of public water systems by the system type. Drinking water in Indiana comes from ground water sources via wells or surface water systems such as lakes and rivers. Some public water systems purchase water from other public water supplies and distribute the water to their customers. Ninety-six percent (96%) of all public water systems are served by ground water systems. However, only fifty-three percent (53%) of the total population is served by systems utilizing ground water.

Drinking Water Monitoring Requirements

Graph 1. Number and Type of Public Water Systems in Indiana



[1] IDEM did not issue any variances or exemptions in 2000, therefore there are no violations for variances and exemptions to address in this summary report.

The Safe Drinking Water Act and the Indiana Public Water Supply Supervision Program mandate the monitoring and reporting of various bacteriological and chemical contaminants that may be found in drinking water. The contaminants are categorized as total coliform, nitrate (NO_3), inorganic chemicals (IOCs), volatile organic compounds (VOCs), synthetic organic compounds (SOCs), radionuclides (Rads), lead and copper (Pb/Cu), and total trihalomethanes (TTHMs). The levels of these contaminants in drinking water are compared to maximum contaminant levels (MCLs) which are set by the Environmental Protection Agency (EPA) and the State, to ensure that water is safe for human consumption. See Table 2 on the back page for a list of MCLs and action levels for all of the regulated contaminants.

Surface water systems are also required to comply with the provisions of the Surface Water Treatment Rule (SWTR). This rule establishes regulations pertaining to treatment techniques that require systems to properly treat their water. If a PWS fails to properly treat its water or cannot control the levels of such contaminants as turbidity, bacteria, viruses, or parasitic microorganisms the system has violated the provisions of the Safe Drinking Water Act and is assigned a Treatment technique (TT) violation.

Violation Summary

Table 1 provides a summary of the number of MCL, M&R, and TT violations for all of the regulated drinking water contaminants for the 2000 calendar year (January 1, 2000-December 31, 2000). The table also provides a summary of the number of systems in violation for each contaminant group. Every effort has been made to tabulate the total number of systems in violation without double counting a system if it has more than one violation across contaminant groups.

An evaluation of the data from the 1997, 1998 and 1999 Annual Compliance Reports, in conjunction with the data for this report, shows a consistency in compliance rates for MCL, M&R, and TT violations. Approximately forty percent (40%) of the total number of active water systems have monitoring and reporting violations for at least one contaminant. The majority of these systems (approximately 70%) are transient public water supplies. The percentage

Table 1. 2000 Violations Summary for Indiana Public Water Supplies							
		MCL		Treatment Technique		Monitoring & Reporting	
		Violations	Systems in Violation	Violations	Systems in Violation	Violations	Systems In Violation
CCR	CWS					173*	144*
Pb/Cu	CWS			19	19	93	71
	NTNC			30	28	62	60
SWTR	CWS			10	5	1	1
	NTNC			2	2	0	0
	TNC			0	0	0	0
VOC	CWS	0	0			67	43
	NTNC	1	1			73	50
IOC	CWS	13	1			47	47
	NTNC	0	0			48	48
SOC	CWS	3	3			49	33
	NTNC	1	1			53	33
NO3	CWS	22	10			27	27
	NTNC	5	3			25	25
	TNC	0	0			504	504
TCR	CWS	96	78			260	146
	NTNC	53	48			223	157
	TNC	237	218			2177	1205
TTHM	CWS	0	0			0	0
	NTNC	0	0			0	0
Rads	CWS	8	2			0	0
Totals	CWS	142	91	29	24	717	290
	NTNC	60	53	32	30	484	248
	TNC	237	218	0	0	2681	1323

*This number reflects violations from 1999 and 2000.

Total Number of Systems in Violation	CWS	347
	NTNC	294
	TNC	1435
	Total	2077

LEGEND

MCL=Maximum Contaminant Level Violation
Pb/Cu=Lead and Copper
IOC=Inorganic Chemicals
TCR=Total Coliform Rule
CWS=Community Water System
CCR=Consumer Confidence Report
SWTR=Surface Water Treatment Rule
SOC=Synthetic Organic Compounds
TTHM=Total Trihalomethanes
NTNC=Nontransient Noncommunity Water System
VOC=Volatile Organic Compounds
NO3=Nitrate
Rads=Radionuclides
TNC=Transient Noncommunity Water System

of systems with maximum contaminant level violations was approximately eight percent (8%).

Consumer Confidence Reports

All community public water systems are required to develop and distribute to their customers a brief annual water quality report, called a consumer confidence report (CCR). The community water system is required to deliver a copy of the CCR to its consumers by July 1st. The purpose of the report is to inform and educate customers on the status and quality of their public water supply. The report contains information on the sources of drinking water, the levels of any detected contaminants, and educational information regarding drinking water.

Compliance Assistance Efforts

The Drinking Water Branch currently assists public water supply owners and operators to promote compliance with the drinking water regulations. Assistance is provided through site visits, correspondence, telephone contact, and educational presentations and materials. The following is a summary of the number of site visits that were conducted in 2000 by the Drinking Water Branch staff:

Sanitary Surveys	**608**
Vulnerability Assessments	**1**
Well Site Surveys	**44**
Technical Assistance Visits	**357**
MCL Follow-Up Visits	**185**

The focus of the compliance assistance efforts has been primarily directed to community and nontransient noncommunity public water supplies. In 2001, The State will be utilizing additional funds available from the federal government to provide technical assistance for small public water systems. Technical contractors will be used to provide additional education, guidance and on-site assistance to small systems to improve compliance and promote a better understanding of the drinking water regulations.

For More Information

If you have any questions concerning this report or would like the lists of public water supplies that have had violations in 2000, please contact the Drinking Water Branch at (317) 308-3280. Additional copies of this report are available on the Indiana Department of Environmental Management, Office of Water Management, Drinking Water Branch web-site at http://www.state.in.us/idem/owm/dwb/compliance.html or by contacting the Drinking Water Branch at (317) 308-3280.

Additional information regarding the quality of your drinking water may be obtained by contacting your local public water supplier. Please contact your local public water supply for a copy of the latest consumer confidence report (CCR) for your public water system.

For more information regarding all aspects of the environment in Indiana, IDEM publishes an annual State of the Environment Report. Copies of the report are available via the internet at http://www.state.in.us/idem/soe/index.html, or by calling (800) 451-6027 ext. 3-1044. Also, for general information regarding drinking water you may contact the EPA Safe Drinking Water Hotline by calling (800) 426-4791.

TABLE 2
REGULATED CHEMICAL DRINKING WATER CONTAMINANTS
MAXIMUM CONTAMINANT LEVELS

Contaminant	MCL	Contaminant	MCL	Contaminant	MCL
Inorganic Chemicals (IOCs)	**mg/l**	**Volatile Organic Compounds (VOCs)**	**ug/l**	**Synthetic Organic Compounds (SOCs)**	**ug/l**
Antimony	0.006	1,1-Dichloroethylene	7	2,4-D	70
Arsenic	0.05	1,1,1-Trichloroethane	200	2,4,5-TP (Silvex)	50
Barium	2	1,1,2-Trichloroethane	5	Alachlor	2
Beryllium	0.004	1,2-Dichloroethane	5	Atrazine	3
Cadmium	0.005	1,2-Dichloropropane	5	Benzo(a)pyrene	0.2
Chromium	0.1	1,2,4-Trichlorobenzene	70	Carbofuran	40
Cyanide (free)	0.2	Benzene	5	Chlordane	2
Fluoride (Adjusted) *	2	Carbon Tetrachloride	5	Dalapon	200
Fluoride (Natural) *	4	Cis-1,2-Dichloroethylene	70	Di(2-ethylhexyl)adipate	400
Mercury	0.002	Dichloromethane	5	Di(2-ethylhexyl)phthalate	6
Nickel	---	Ethylbenzene	700	Dibromochloropropane (DBCP)	0.2
Selenium	0.05	Monochlorobenzene	100	Dinoseb	7
Thallium	0.002	o-Dichlorobenzene	600	Dioxin (2,3,7,8-TCDD)	3X10-5
		p-Dichlorobenzene	75	Diquat	20
Sodium *	No MCL	Styrene	100	Endothall	100
		Tetrachloroethylene	5	Endrin	2
Asbestos		Toluene	1000	Ethylene Dibromide (EDB)	0.05
Asbestos	7 MFL**	Trans-1,2-Dichloroethylene	100	Glyphosate	700
		Trichloroethylene	5	Heptachlor	0.4
Nitrate		Vinyl Chloride	2	Heptachlor epoxide	0.2
Nitrate	10	Xylenes (total)	10,000	Hexachlorobenzene	1
Nitrite	1			Hexachlorocyclopentadiene	50
Total Nitrate & Nitrite	10			Lindane	0.2
		Total Trihalomethanes **** (for systems >10,000)	100	Methoxychlor	40
Lead & Copper				Oxamyl (Vydate)	200
Lead Action Level	0.015			PCBs	0.5
Copper Action Level	1.3			Pentachlorophenol	1
				Picloram	500
Radionuclides *	**pCi/l**			Simazine	4
Gross Alpha	15			Toxaphene	3
Gross Alpha Action Level	5				
Radium-226 Action Level	3				
Radium-226 & Radium-228 (combined)	5				
Manmade	***				

* Community Water Systems Only
** MFL=million fibers/liter > 10 micron
*** The average annual concentration of beta particle and photon radioactivity from manmade radionuclides in drinking water shall not produce an annual dose equivalent to the total body or any internal organ greater than four (4) millirem per year.
**** The sum of the concentrations of bromodichlormethane, dibromochloromethane, tribromomethane (bromoform), and trichloromethane (chloroform).